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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO. CONFIRMATION NO.		
09/890,229	11/27/2001	Peter M. Bramley	B0192/7031 9395		
23628	7590 10/01/2003				
WOLF GREENFIELD & SACKS, PC			EXAMINER		
600 ATLANT			KALLIS, RUSSELL		
BOSTON, MA 02210-2211			ART UNIT	PAPER NUMBER	
			1638		
			DATE MAILED: 10/01/2003		

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application	No.	Applicant(s)					
Office Action Summary		09/890,229		BRAMLEY ET AL.					
		Examiner		Art Unit					
		Russell Kalli	s	1638					
The MAILING DATE of this communication appears on the cover sheet with the correspondence address									
Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM									
THE I - Exter after - If the - If NO - Failui - Any r earne	MAILING DATE OF THIS COMMUNICATION sicons of time may be available under the provisions of 37 CFR 1 SIX (6) MONTHS from the mailing date of this communication. period for reply specified above is less than thirty (30) days, a re period for reply is specified above, the maximum statutory perior re to reply within the set or extended period for reply will, by statuely received by the Office later than three months after the mailing datent term adjustment. See 37 CFR 1.704(b).	1.136(a). In no event, aply within the statutor d will apply and will ex ate, cause the applicat	however, may a reply be tim y minimum of thirty (30) days pire SIX (6) MONTHS from t ion to become ABANDONED	ely filed s will be considered timely. the mailing date of this communication. O (35 U.S.C. § 133).					
Status		7 M							
1)⊠									
2a) 🗌	,								
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213. Disposition of Claims									
•		an.							
•	 Claim(s) 1-34 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration. 								
	Claim(s) is/are allowed.								
•	Claim(s) is/are rejected.								
	Claim(s) is/are rejected to.								
	8) Claim(s) 1-34 are subject to restriction and/or election requirement.								
•	on Papers								
9) 🗀 -	The specification is objected to by the Examin	ner.							
10) 🗌 🗆	Γhe drawing(s) filed on is/are: a)□ acc	epted or b) 🗌 ob	jected to by the Exan	niner.					
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).									
11)☐ The proposed drawing correction filed on is: a)☐ approved b)☐ disapproved by the Examiner.									
If approved, corrected drawings are required in reply to this Office action.									
12) The oath or declaration is objected to by the Examiner.									
•	nder 35 U.S.C. §§ 119 and 120								
13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).									
a)[☑ All b)☐ Some * c)☐ None of:								
	1. Certified copies of the priority documents have been received.								
	2. Certified copies of the priority documents have been received in Application No								
	3. Copies of the certified copies of the pri- application from the International B ee the attached detailed Office action for a lis	Bureau (PCT Ru	le 17.2(a)).	-					
14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).									
) ☐ The translation of the foreign language placknowledgment is made of a claim for domes								
Attachment									
2) Notice	e of References Cited (PTO-892) e of Draftsperson's Patent Drawing Review (PTO-948) nation Disclosure Statement(s) (PTO-1449) Paper No(s)	4) 5) 	Notice of Informal P	(PTO-413) Paper No(s) atent Application (PTO-152)					

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DETAILED ACTION

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-21,24-34, drawn to a method of increasing isoprenoid expression by enhancing 1-deoxy-D-xylulose-5-phosphate synthase (DXPS) activity.

Group II, claim(s) 1-2, 14-21, drawn to a method of decreasing isoprenoid expression by decreasing 1-deoxy-D-xylulose-5-phosphate synthase (DXPS) activity.

Group III, claim(s) 22-23, drawn to a method of identifying a compound that modulates isoprenoid activity.

The inventions listed as Groups I-III do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The methods of modulating isoprenoid activity of Groups I-II and the method of identifying a compound that modulates isoprenoid activity do not share a common technical feature because the method of identifying a compound that modulates isoprenoid activity is taught in the art. Sprenger G. A. *et al.* PNAS, November 1997, Vol. 94, pages 12857-12862 teach a thamin dependency for catalytic function of DXPS on page 12860 column 1, lines 12-32.

The inventions are distinct, each from the other because of the following reasons:

Inventions I-II and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are the methods of either increasing or decreasing the activity of isoprenoid

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expression of Groups I and II respectively and the method of identifying a compound that modulates isoprenoid activity that have different method steps and different end products.

Because the inventions are distinct for the reasons given above and have required a separate status in the art as shown by their recognized divergent subject matter, and because the search required for one of the groups is not required for another restriction for examination purposes as indicated is proper.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37) CFR 1.143).

Claims 1-2 and 14-21 link(s) inventions I and II. The restriction requirement between the linked inventions is subject to the nonallowance of the linking claim(s), claim1-2 and 14-21. Upon the allowance of the linking claim(s), the restriction requirement as to the linked inventions shall be withdrawn and any claim(s) depending from or otherwise including all the limitations of the allowable linking claim(s) will be entitled to examination in the instant application. Applicant(s) are advised that if any such claim(s) depending from or including all the limitations of the allowable linking claim(s) is/are presented in a continuation or divisional application, the claims of the continuation or divisional application may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Where a restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. In re Ziegler, 44 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

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Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Russell Kallis whose telephone number is (703) 305-5417. The examiner can normally be reached on M-F 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amy Nelson can be reached on (703) 306-3218. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0198.

Russell Kallis Ph.D. September 26, 2003

PHUONG T. BUI